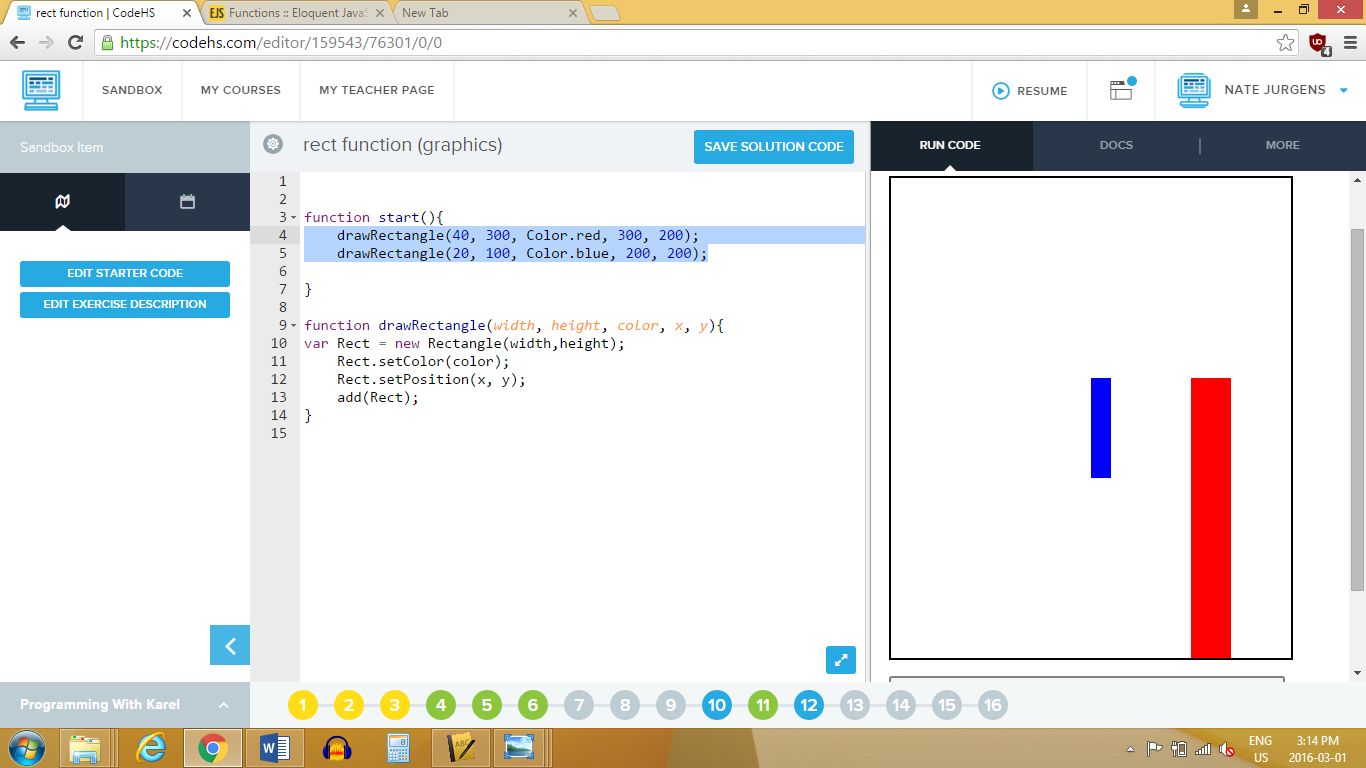
**Computer Science 30 Checkpoint 1**

The following problems will be solved in the sandbox on CodeHS.com

1. Code a function that produces rectangles that look like this when the following information is entered:

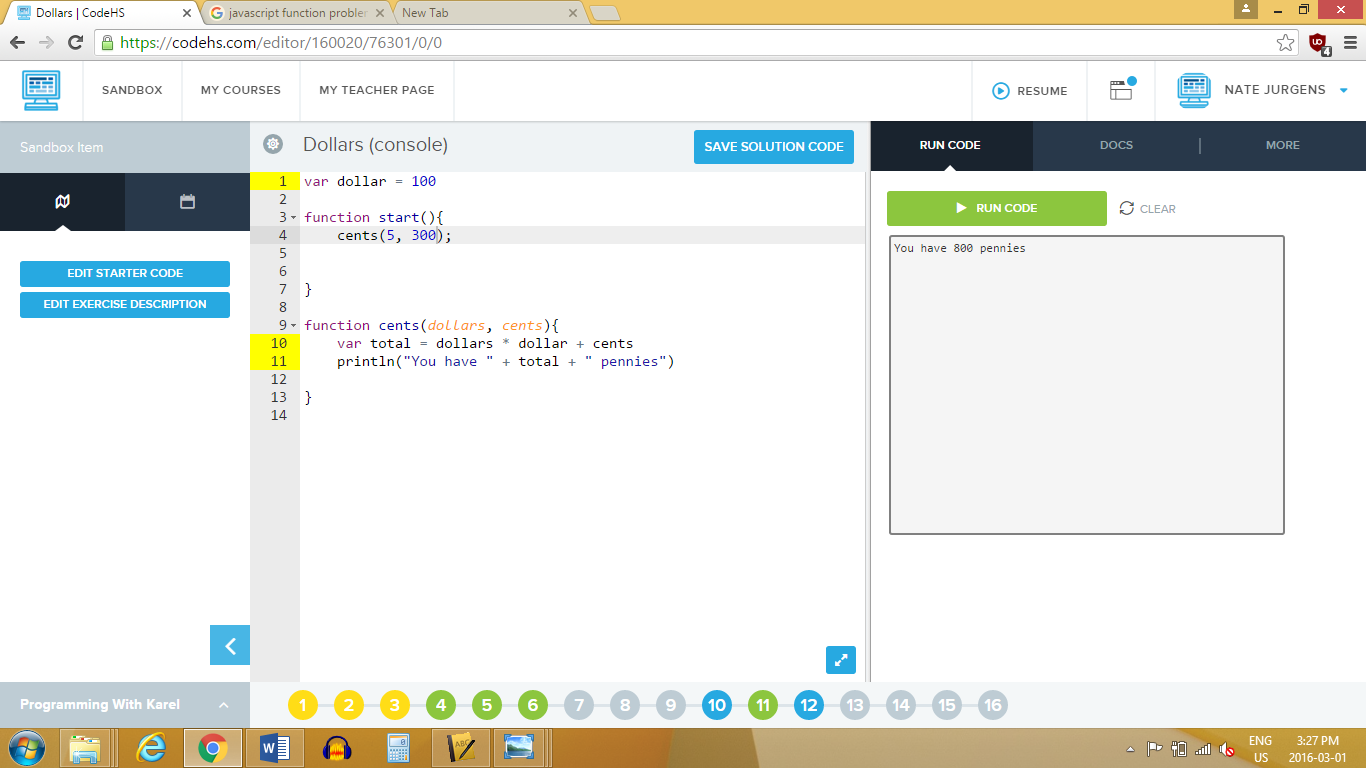
function start(){

drawRectangle(40, 300, Color.red, 300, 200);

drawRectangle(20, 100, Color.blue, 200, 200);

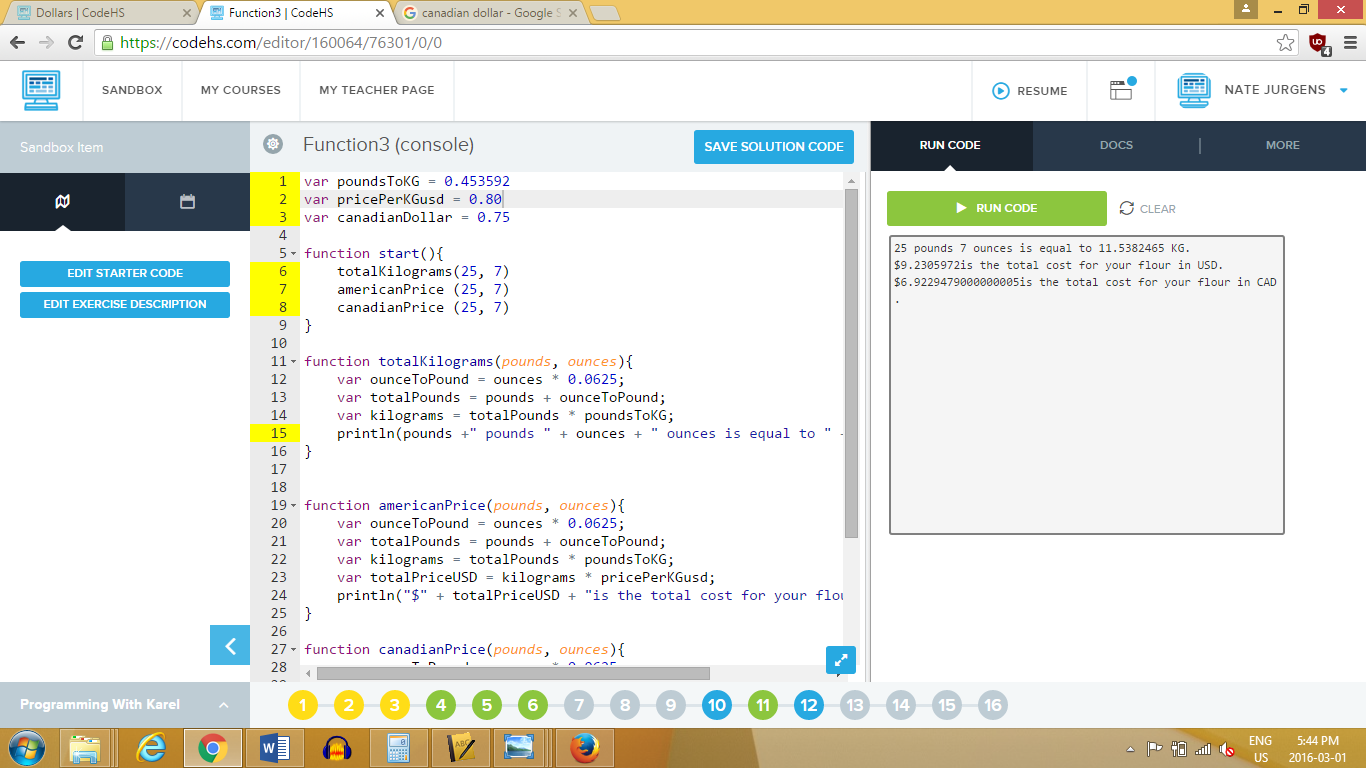
}

1. Code a function that will determine how many pennies someone has to spend. The user will enter a dollar and cents value as their parameters. Your program will tell them in the end how many pennies they have.

Example:

5 dollars and 300 cents =

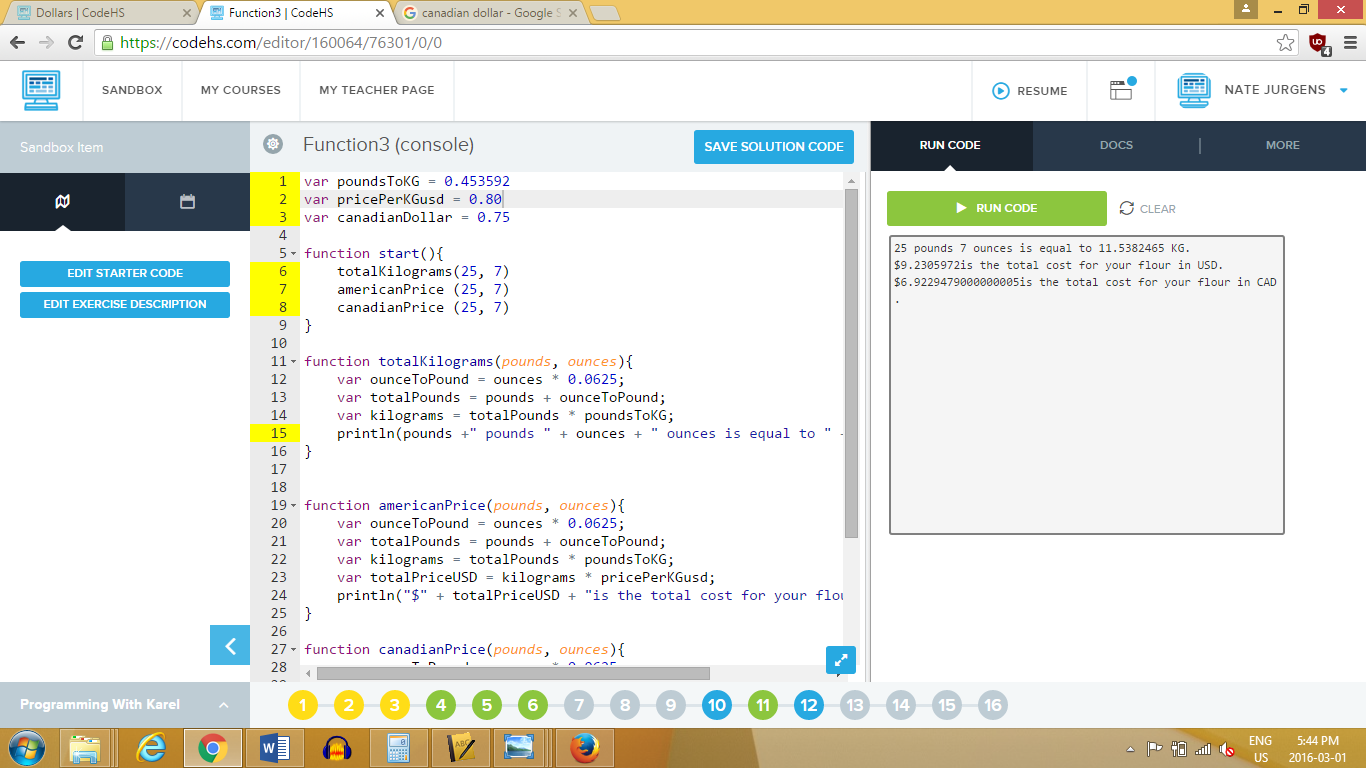
1. a) Robin Hood flour needs to convert its inventory from imperial to metric for its Canadian consumers. Create a program that will convert the pounds and ounces to kilograms. You will need to research a conversion rate to use. Here is an example:

function start (){

totalKilograms (25,7)

}

b) Once you have completed question 3a, add another function to your program that will calculate the total cost of the consumers purchase in American dollars. 1 kilogram of flour, costs $.80 in American dollars.

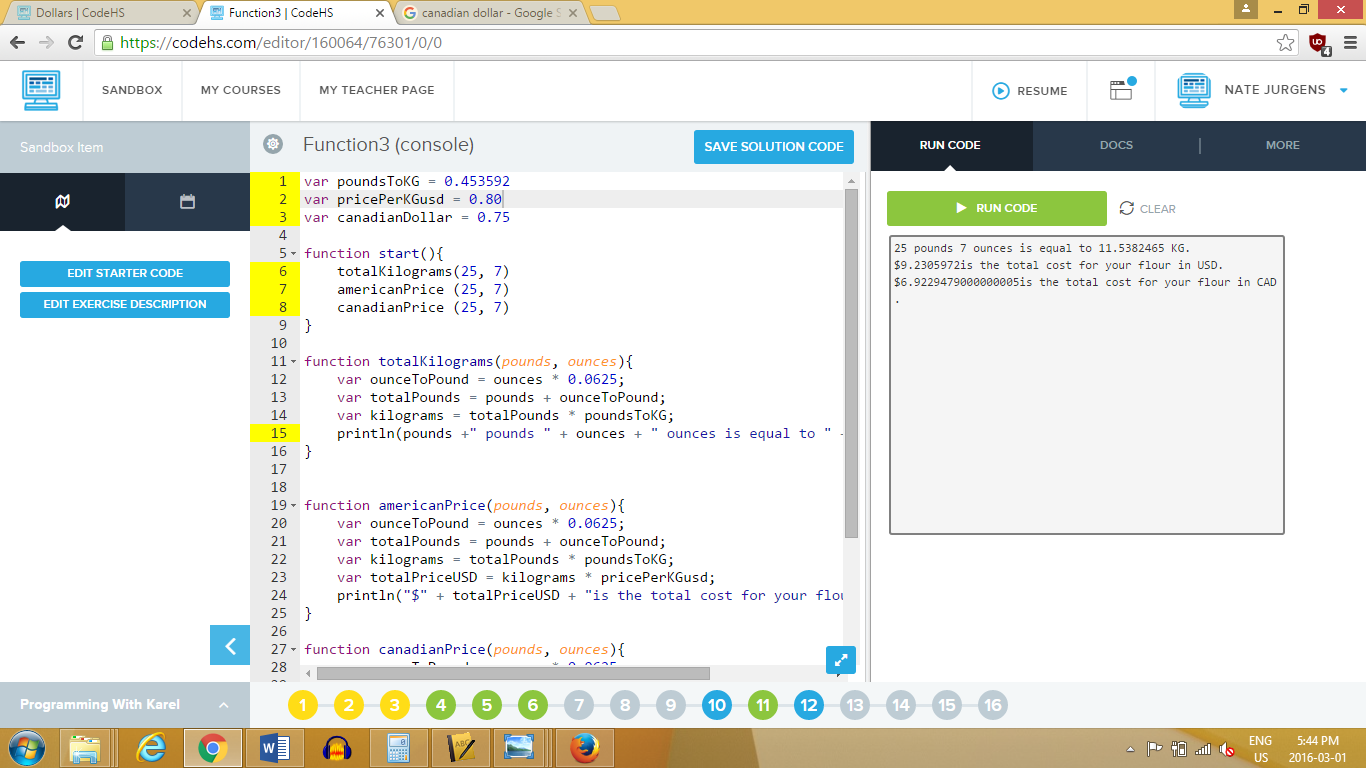
function start (){

totalKilograms (25,7)

american Price (25, 7)

}

c) Once you have completed question 3b, add another function to your program that will convert the American price for flour to the Canadian price using the current exchange rate of $.75



function start(){

totalKilograms(25, 7)

americanPrice (25, 7)

canadianPrice (25, 7)

}

1. Create a function of your choice that deals with a real world scenario. **Example: Height in Meters problem from CodeHS.** Provide the source code for your function and explain the purpose of the function. Remember, the idea of a function is to simplify/cut down the amount to code necessary in a program if used many times.

**Evaluation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grade** | **4**  **100-90** | **3**  **89-75** | **2**  **74-60** | **1**  **59-50** |
| **Criteria** | The program works and meets all of the specifications. The code is exceptionally well organized and very easy to follow.  The code is extremely efficient without sacrificing readability and understanding. The code incorporates all of the required criteria of the lab. | The program works and produces the correct results and displays them correctly. The code is fairly easy to read.  The code is fairly efficient without sacrificing readability and understanding. The code incorporates most of the required criteria for the lab. | The program produces correct results but does not display them correctly. The code is readable only by someone who knows what it is supposed to be doing.  The code is unorganized and it is difficult to navigate the page. The student did not include some of key elements required in the lab. | The program is producing incorrect results. The code is poorly organized and very difficult to read.  The code uses incorrect tags and does not work in a browser.  The code includes a small amount of the required criteria. |